CLAIMS:

1. A method (100) for controlling an image being displayed on a display from a set-top box comprising:

a) tuning (101) to a user selected channel;

b) determining (102) if the user selected channel includes programming having a first aspect ratio;

c) employing (104) a first output format, if the user selected channel does not include programming having the first aspect ratio;

d) continuing with steps e) through l), if the user selected channel contains programming having the first aspect ratio:

e) checking (103) an override setting for the first aspect ratio;

f) if the override setting for the first aspect ratio is not set to a stretch setting, applying (105) a predetermined procedure for a first aspect ratio override feature;

g) if the override setting for the first aspect ratio is set to a stretch setting then continuing with steps h) through l);

h) stretching (106) video from the user selected channel having the first aspect ratio to fill a frame having a second aspect ratio that is different than the first aspect ratio using a predetermined stretching function;

i) maintaining (107) any overlaying graphics with their original aspect ratio;

k) converting (108) a resulting video to an output format specified by the first output format setting, wherein:

(i) if the first output format setting comprises 1080i (109), the stretched video comprises 1080i (112);

(ii) if the first output setting comprises 720p (110), the stretched video comprises 720p (113); and

(iii) if the first output setting comprises 480p (111), the stretched video comprises 480p (114); and

l) output (115) the stretched and converted video frames on one or more component video outputs, whereby only a plurality of primary high definition video outputs display stretched video frame and a plurality of secondary standard digital video outputs display 4:3 video.

2. A method (100) for controlling an image being output from a set-top box comprising:

determining (102) if a user selected channel contains programming having a first aspect ratio; and

stretching (106) automatically video from the user selected channel having the first aspect ratio, if the user selected channel contains programming having the first aspect ratio, to fill a frame having a second aspect ratio that is different than the first aspect ratio using a predetermined stretching function.

3. The method (100) according to claim 2, further comprising initiating said determining and said stretching upon tuning (101) to a user selected channel.

4. The method (100) according to claim 2, further comprising:

employing (104) a first output format if the user selected channel does not contain programming having the first aspect ratio.

5. The method (100) according to claim 2, further comprising:

determining (103), before said stretching, if an override setting exists for the first aspect ratio, and if the override setting for the first aspect ratio is not set to a stretch setting then applying (105)a predetermined procedure for a first aspect ratio override feature rather than said stretching, and if the override setting for the first aspect ratio is set to the stretch setting then performing said stretching (106).

6. The method (100) according to claim 2, further comprising:

maintaining (107) any overlaying graphics with their original aspect ratio.

7. The method (100) according to claim 6, wherein said overlaying graphics includes an electronic programming guide and closed-captioning text.

8. The method (100) according to claim 2, further comprising:

converting (108) a resulting video to an output format specified by the first output format setting.

9. The method (100) according to claim 8, wherein:

(i) if the first output format setting comprises 1080i (109), the stretched video comprises 1080i (112);

(ii) if the first output setting comprises 720p (110), the stretched video comprises 720p (113); and

(iii) if the first output setting comprises 480p (111), the stretched video comprises 480p (114).

10. The method (100) according to claim 2, further comprising:

outputting (115) a plurality of stretched and converted video frames on one or more component video outputs.

11. The method (100) according to claim 2, wherein only a plurality of primary high definition video outputs display stretched video frames and a plurality of secondary standard digital video outputs display video having the first aspect ratio.

12. The method (100) according to claim 11, wherein the plurality of primary high definition video outputs include YPrPb outputs.

13. The method (100) according to claim 11, wherein the plurality of secondary standard digital video outputs include one or more selected from the group of: a composite video output, an S-Video output and an RF video output.

14. A method (200) for controlling video output from a set-top box comprising:

receiving (201) a zoom toggle command from a user via a remote control unit;

determining (202) if a user-selected program includes a second aspect ratio different than a first aspect ratio;

determining (203) a television type setting from a user settings screen;

selecting (206) a next available zoom mode for a second aspect ratio television type if the television type setting is set for the second aspect ratio and setting (207) an output format to a mode specified by a first predetermined output setting;

selecting (208) a next available zoom mode for a first aspect ratio television type if the television type setting is set for the first aspect ratio, and determining (209) if a zoom mode selected is a predetermined mode and, if so, setting (211) an output format to an override mode for the first aspect ratio, otherwise setting (210) an output format to a mode specified by the first predetermined output setting; and

ignoring (205) the zoom toggle command if the television type setting is not set for the first aspect ratio or the second aspect ratio.

15. A method (200) for controlling video output from a set-top box upon receiving a zoom toggle command from a user via a remote control unit, said method comprising:

determining (202) if a user-selected program includes a second aspect ratio different than a first aspect ratio and ignoring (205) the zoom toggle command if the programming does not include the second aspect ratio;

selecting (206; 208) a next available zoom mode for a first or second aspect ratio television type if the television type setting is set for the first or second aspect ratio, respectively, and setting (207; 210) an output format to a mode specified by a first predetermined output setting.

16. The method (200) according to claim 15, further comprising:

determining (203) a television type setting from a user settings screen.

17. The method according to claim 15, further comprising:

ignoring (205) the zoom toggle command if the television type setting is not set for the first aspect ratio or the second aspect ratio.

18. The method (200) according to claim 15, further comprising:

determining (209) if a zoom mode selected for the first aspect ratio television type is a predetermined mode and, if so, setting (211) an output format to an override mode for the first aspect ratio.

19. An apparatus (220) for controlling a video image output from a set-top box comprising:

a processor (221);

a memory (222) being coupled to the processor and having encoded therein computer readable instructions causing the processor (221_ to control an image being output to a display (225) by:

determining (102) if a user selected channel contains programming having a first aspect ratio; and

stretching (106) automatically video from the user selected channel having the first aspect ratio, if the user selected channel contains programming having the first aspect ratio, to fill a frame having a second aspect ratio that is different than the first aspect ratio using a predetermined stretching function.

20. The apparatus (220) according to claim 19, further comprising a remote control unit coupled to the processor (226), wherein said processor (221) initiates said determining and said stretching upon receiving a command to tune to a user selected channel from the remote control unit (226).

21. The apparatus (220) according to claim 19, wherein said processor (221) employs a first output format if the user selected channel does not contain programming having the first aspect ratio.

22. The apparatus (220) according to claim 19, wherein said processor (221) determines (103), before said stretching, if an override setting exists for the first aspect ratio, and if the override setting for the first aspect ratio is not set to a stretch setting then applies (105) a predetermined procedure for a first aspect ratio override feature rather than said stretching (106), and if the override setting for the first aspect ratio is set to the stretch setting then performs said stretching (106).

23. The apparatus (220) according to claim 19, wherein said processor (221) maintains any overlaying graphics with their original aspect ratio.

24. The apparatus (220) according to claim 19, wherein said processor (221) converts a resulting video to an output format specified by the first output format setting.

25. The apparatus (220) according to claim 19, wherein said processor outputs a plurality of stretched and converted video frames on one or more component video outputs.

26. The apparatus (220) according to claim 19, further comprising a plurality of primary high definition video outputs which include stretched video frames and a plurality of secondary standard digital video outputs which include video having the first aspect ratio.

27. An apparatus (230) for controlling video comprising:

a remote control unit (226);

a receiver (223) to interact with the remote control unit (226) and to receive a zoom toggle command from a user via said remote control unit (226);

a processor (221) determining if a user-selected program includes a second aspect ratio different than a first aspect ratio and ignoring the zoom toggle command if the programming does not include the second aspect ratio; and

a graphical user interface (224) via which a user can enter a television type setting via a user settings screen, wherein said processor (221) determines the television type setting from the user settings screen, and selects a next available zoom mode for a first or second aspect ratio television type if the television type setting is set for the first or second aspect ratio, respectively, and sets an output format to a mode specified by a first predetermined output setting.

28. The apparatus (230) according to claim 27, wherein said processor (221) ignores the zoom toggle command if the television type setting is not set for the first aspect ratio or the second aspect ratio.

29. The apparatus (230) according to claim 27, wherein said processor (221) determines if a zoom mode selected for the first aspect ratio television type is a predetermined mode and, if so, sets an output format to an override mode for the first aspect ratio.

30. A method (200) for controlling a display of video having a 16:9 aspect ratio image using a set-top box, comprising:

cycling (206) among a plurality of selectable zoom modes upon receiving a zoom toggle command from a remote control; and

moving (206) to a top of a list of the plurality of selectable zoom modes upon reaching a bottom of the list of the plurality of selectable zoom modes, wherein the plurality of selectable zoom modes includes:

(1) a "No Zoom" mode to remove all ASTB Zoom Mode processing to view video broadcast "as is";

(2) a zoom mode that takes a centered 14:9 cutout of a 16:9 broadcast image and horizontally stretches the 16:9 broadcast image to fill a 16:9 frame of a display;

(3) a zoom mode that takes a centered 4:3 cutout of a 16:9 broadcast image and horizontally stretches the 16:9 broadcast image to fill a 16:9 frame of a display; and

(4) a zoom mode that takes a centered 4:3 cutout of a 16:9 broadcast image and horizontally and vertically stretches the 16:9 broadcast image to fill a 16:9 frame of a display; and

(5) a zoom mode that takes a centered 4:3 cutout of the 16:9 broadcast and converts the output format of the ASTB to a known 4:3 format (either 480i or 480p).

31. A method (24) for controlling an image being output from a set-top receiver to a display comprising:

receiving (241) information as to an aspect ratio of the display to which the set-top receiver is connected;

manipulating (242) a received video image in the set-top receiver using a stretch/zoom technique to provide at least one customized zoom mode guaranteed to fill an entire screen of the display and to provide one or more additional zoom modes that are independent of the aspect ratio of the display;

outputting (243) the manipulated video image using one or more ATSC formats;

receiving (244) input from a viewer to select one of the at least one customized zoom mode or the one or more additional zoom modes, or setting the zoom mode

automatically based on the aspect ratio of the display without requiring additional input from the user.